

IN THE CLAIMS

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and the applicant and/or assignee reserves the right to claim this subject matter and/or other disclosed subject matter in a continuing application.

Listing of Claims:

What is claimed is:

1. (Currently Amended) A data transmission process with auto-synchronized correcting code, comprising:

~~at transmission:~~

defining a timing of bits of the data, to be transmitted, by a clock signal and forming synchronization management signals ~~including~~ comprising:

a symbol clock signal m number of times less fast than the clock signal, where m is an integer, and m bits constituting an information symbol,

a symbol synchronization signal capable of designating the first symbol of ~~the~~ a packet, and

a data acquisition interruption signal intervening every K number of symbols, where K is a pre-set integer;

~~under control of the data acquisition interrupting signal;~~ inserting a header before a first group of K symbols and inserting a second group of R symbols after said first group, ~~the~~ a second group of R symbols ~~constituting~~ comprising a correcting code corresponding to the K symbols of the first group, R being a pre-set integer dependent on a correcting code type used, the first and second groups of (R+K) symbols forming a packet, and the header being a header specific to this packet, under control of the data acquisition interrupting signal; and

modulating and transmitting each packet with its header;

~~at a receive end:~~

demodulating the signal received and extracting the clock signal;

implementing a header search process in the demodulated signal and, when the header is detected, inhibiting the header search process and generating the a symbol synchronization symbol;

~~under the control of the symbol clock and symbol synchronization signals,~~
processing the received packet so as to correct any erroneous symbols of the first group by the correcting code of the second group and reactivating the header search process after each packet processing, under the control of the symbol clock and symbol synchronization signals; and

retrieving, from the corrected symbols, the transmitted data.

2. (Currently Amended) A process according to claim 1, wherein:
at transmission, said modulating modulation is effected by spread spectrum by means of pseudo-random sequences; and
correlating with the pseudo-random sequences ~~is used~~ at transmission.
3. (Original) A process according to claim 1, wherein the correcting code is a Reed-Solomon type code.
4. (Currently Amended) An auto-synchronized coder ~~for implementing the process according to claim 1~~, comprising:
means for forming synchronization management signals, wherein the synchronization management signals ~~including~~ comprise:
the a symbol clock signal ~~m times less fast than the~~ as a clock signal timing the data bits, where m is an integer, and m bits constituting the an information symbol,
the a symbol synchronization signal locating the start of each symbol, ~~and~~
every K symbols, where K is a pre-set integer; and
means for inserting, under control of the an acquisition interruption signal, a packet header before a first group of K symbols, and a second group of R symbols after said first group, the second group of R symbols constituting a correcting code assigned to the K symbols of the first group, R being a pre-set integer ~~dependent on~~ based at least in part upon the correcting code

type used, the first and second group of (R+K) symbols forming a packet, and the header being a header specific to this packet.

5. (Previously Presented) An auto-synchronization decoder for implementing the process according to claim 1, comprising:

means for constituting, from a data packet, the clock signal, the symbol clock signal and the symbol synchronization signal; and

means for implementing a header search process in the demodulated packet, for inhibiting the header search when a header is detected, and for, under control of the symbol clock and the symbol synchronization signals, processing the packet received, correcting any erroneous symbols of the first group by means of the correcting code of the second group, and reactivating the header search process after each packet processing.

6. (Currently Amended) A transmitter for implementing the process according to claim 1, comprising:

a transmission module configured to modulate the data and to spread the spectrum of the data by a pseudo-random sequence; and

~~before said transmission module,~~ an auto-synchronized coder, before said transmission module, including comprising:

means for forming synchronization management signals, the synchronization management signals including comprising:

~~the a~~ a symbol clock signal ~~m~~ m times less fast than ~~the a~~ a clock signal timing the data bits, where m is an integer, m bits constituting the an information symbol, ~~the a~~ a symbol synchronization signal locating the start of each symbol, and every K symbols, where K is a pre-set integer,

means for inserting, under control of ~~the an~~ an acquisition interruption signal, a packet header before a first group of K symbols and a second group of R symbols after said first group, the second group of R symbols constituting a correcting code assigned to the K symbols of the first group, R being a pre-set integer dependent on the correcting code type used, the first and second group of (R+K) symbols forming a packet, and the header being a header specific to this packet.

7. (Currently Amended) A receiver for implementing the process according to claim 1, comprising:

a receive module configured to demodulate the data, and to de-spread the spectrum of the data by a pseudo-random sequence; and

~~after said receive module,~~ an auto-synchronized decoder, after said receive module, the decoder comprising including:

means for constituting, from a data packet, the clock signal, the symbol clock signal and the symbol synchronization signal; and

means for implementing a header search process in the demodulated packet, for inhibiting the header search when a header is detected, and for, under control of the symbol clock and the symbol synchronization signals, processing the packet received, correcting any erroneous symbols of the first group by means of the correcting code of the second group, and reactivating the header search process after each packet processing.